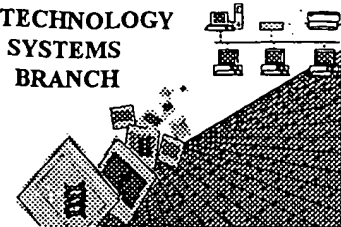


B. Celsa

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



**RAW SEQUENCE LISTING**  
**ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/710,444B  
Source: 1600  
Date Processed by STIC: 4-17-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER** **VERSION 4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

**<http://www.uspto.gov/web/offices/pac/checker>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

# Raw Sequence Listing Error Summary

## ERROR DETECTED

## SUGGESTED CORRECTION

SERIAL NUMBER: \_\_\_\_\_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1        Wrapped Nucleics  
    Wrapped Aminos  
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2        Invalid Line Length  
The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3        Misaligned Amino  
    Numbering  
The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4        Non-ASCII  
    Text  
The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5        Variable Length  
Sequence(s)        contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6        PatentIn 2.0  
    "bug"  
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)       . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7        Skipped Sequences  
    (OLD RULES)  
Sequence(s)        missing. If intentional, please insert the following lines for each skipped sequence:  
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
This sequence is intentionally skipped  
  
Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8        Skipped Sequences  
    (NEW RULES)  
Sequence(s)        missing. If intentional, please insert the following lines for each skipped sequence.  
<210> sequence id number  
<400> sequence id number  
000
- 9        Use of n's or Xaa's  
    (NEW RULES)  
Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10        Invalid <213>  
    Response  
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11        Use of <220>  
Sequence(s)        missing the <220> "Feature" and associated numeric identifiers and responses.  
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12        PatentIn 2.0  
    "bug"  
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13        Misuse of n  
n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



1600

## RAW SEQUENCE LISTING

DATE: 06/02/2003

PATENT APPLICATION: US/09/710,444B

TIME: 14:40:18

Input Set : A:\sequence listing\Mzw2841.txt

Output Set: N:\CRF4\06022003\I710444B.raw

5 <110> APPLICANT: Diversys Limited  
 7 Tomlinson, Ian  
 9 Winter, Greg  
 13 <120> TITLE OF INVENTION: Library  
 17 <130> FILE REFERENCE: p3038.jp  
 C--> 21 <140> CURRENT APPLICATION NUMBER: US/09/710,444B  
 C--> 23 <141> CURRENT FILING DATE: 2000-11-20  
 27 <150> PRIOR APPLICATION NUMBER: PCT/GB98/03135  
 29 <151> PRIOR FILING DATE: 1998-10-20  
 33 <150> PRIOR APPLICATION NUMBER: GB 9722131.1  
 35 <151> PRIOR FILING DATE: 1997-10-20  
 39 <150> PRIOR APPLICATION NUMBER: US 60/065428  
 41 <151> PRIOR FILING DATE: 1997-11-13  
 45 <150> PRIOR APPLICATION NUMBER: US 60/066729  
 47 <151> PRIOR FILING DATE: 1997-11-21  
 51 <160> NUMBER OF SEQ ID NOS: 87  
 55 <170> SOFTWARE: PatentIn version 3.0  
 59 <210> SEQ ID NO: 1  
 61 <211> LENGTH: 20  
 63 <212> TYPE: DNA  
 65 <213> ORGANISM: Artificial  
 69 <220> FEATURE:  
 71 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 73 <400> SEQUENCE: 1  
 74 gaggtgcagc tgttgagtc  
 77 <210> SEQ ID NO: 2  
 79 <211> LENGTH: 69  
 81 <212> TYPE: DNA  
 83 <213> ORGANISM: Artificial  
 87 <220> FEATURE:  
 89 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 91 <220> FEATURE:  
 93 <221> NAME/KEY: variation  
 95 <222> LOCATION: (23)..(24)  
 97 <223> OTHER INFORMATION: X is any nucleotide  
 101 <220> FEATURE:  
 103 <221> NAME/KEY: variation  
 105 <222> LOCATION: (29)..(30)  
 107 <223> OTHER INFORMATION: X is any nucleotide  
 111 <220> FEATURE:  
 113 <221> NAME/KEY: variation  
 115 <222> LOCATION: (32)..(33)  
 117 <223> OTHER INFORMATION: X is any nucleotide

7P 1-6  
 Does Not Comply  
 Corrected Diskette Needed

give  
 source of  
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 materia

20

see  
 item III  
 on error  
 summary  
 sheet

per sequence  
 Rules use  
 "n"

## RAW SEQUENCE LISTING

DATE: 06/02/2003

PATENT APPLICATION: US/09/710,444B

TIME: 14:40:18

Input Set : A:\sequence listing\Mzw2841.txt

Output Set: N:\CRF4\06022003\I710444B.raw

121 <220> FEATURE:  
 123 <221> NAME/KEY: variation  
 125 <222> LOCATION: (38)..(39)  
 127 <223> OTHER INFORMATION: (X) is any nucleotide  
 131 <220> FEATURE:  
 133 <221> NAME/KEY: variation  
 135 <222> LOCATION: (41)..(42)  
 137 <223> OTHER INFORMATION: (X) is any nucleotide  
 141 <220> FEATURE:  
 143 <221> NAME/KEY: variation  
 145 <222> LOCATION: (44)..(45)  
 147 <223> OTHER INFORMATION: (X) is any nucleotide  
 151 <220> FEATURE:  
 153 <221> NAME/KEY: variation  
 155 <222> LOCATION: (50)..(51)  
 157 <223> OTHER INFORMATION: (X) is any nucleotide  
 161 <400> SEQUENCE: 2

W--> 162 gcccttcacg gagtctgcgt amnntgtmnn mnnaccmnnm nmmnnaatmn ntgagaccca 60  
 164 ctccagccc 69

167 <210> SEQ ID NO: 3  
 169 <211> LENGTH: 69  
 171 <212> TYPE: DNA  
 173 <213> ORGANISM: Artificial  
 177 <220> FEATURE:  
 179 <223> OTHER INFORMATION: Description of Artificial Sequence (oligonucleotide)  
 181 <400> SEQUENCE: 3  
 182 tabhtgagac ccaactccagc ccgcccttca cggagtctgc gtaabhtgta bhabhaccab 60  
 184 habhabhaa 69

187 <210> SEQ ID NO: 4  
 189 <211> LENGTH: 19  
 191 <212> TYPE: DNA  
 193 <213> ORGANISM: Artificial  
 197 <220> FEATURE:  
 199 <223> OTHER INFORMATION: Description of Artificial Sequence (oligonucleotide)  
 201 <400> SEQUENCE: 4  
 202 cgcagactcc gtgaagggc 19

205 <210> SEQ ID NO: 5  
 207 <211> LENGTH: 53  
 209 <212> TYPE: DNA  
 211 <213> ORGANISM: Artificial  
 215 <220> FEATURE:  
 217 <223> OTHER INFORMATION: Description of Artificial Sequence (oligonucleotide)  
 219 <220> FEATURE:  
 221 <221> NAME/KEY: variation  
 223 <222> LOCATION: (23)..(24)  
 225 <223> OTHER INFORMATION: (X) is any nucleotide  
 229 <220> FEATURE:  
 231 <221> NAME/KEY: variation  
 233 <222> LOCATION: (26)..(27)

P.3

## RAW SEQUENCE LISTING

DATE: 06/02/2003

PATENT APPLICATION: US/09/710,444B

TIME: 14:40:18

Input Set : A:\sequence listing\Mzw2841.txt

Output Set: N:\CRF4\06022003\I710444B.raw

235 <223> OTHER INFORMATION: (X) is any nucleotide  
 239 <220> FEATURE:  
 241 <221> NAME/KEY: variation  
 243 <222> LOCATION: (29)..(30) n  
 245 <223> OTHER INFORMATION: (X) is any nucleotide  
 249 <220> FEATURE:  
 251 <221> NAME/KEY: variation  
 253 <222> LOCATION: (32)..(33) n  
 255 <223> OTHER INFORMATION: (X) is any nucleotide  
 259 <400> SEQUENCE: 5  
 W--> 260 tccctggccc cagtagtcaa amnnmnnmnn mnntttcgca cagtaataata cgg 53  
 263 <210> SEQ ID NO: 6  
 265 <211> LENGTH: 53  
 267 <212> TYPE: DNA  
 269 <213> ORGANISM: Artificial  
 273 <220> FEATURE:  
 275 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 277 <400> SEQUENCE: 6  
 278 tccctggccc cagtagtcaa aabhabhabh abhtttcgca cagtaataata cgg 53  
 281 <210> SEQ ID NO: 7  
 283 <211> LENGTH: 20  
 285 <212> TYPE: DNA  
 287 <213> ORGANISM: Artificial  
 291 <220> FEATURE:  
 293 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 295 <400> SEQUENCE: 7  
 296 gacatccaga tgacccagtc 20  
 299 <210> SEQ ID NO: 8  
 301 <211> LENGTH: 51  
 303 <212> TYPE: DNA  
 305 <213> ORGANISM: Artificial  
 309 <220> FEATURE:  
 311 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 313 <220> FEATURE:  
 315 <221> NAME/KEY: variation  
 317 <222> LOCATION: (21)..(22) n  
 319 <223> OTHER INFORMATION: (X) is any nucleotide  
 323 <220> FEATURE:  
 325 <221> NAME/KEY: variation  
 327 <222> LOCATION: (30)..(31) n  
 329 <223> OTHER INFORMATION: (X) is any nucleotide  
 333 <400> SEQUENCE: 8  
 W--> 334 atgggacccc actttgcaam nnggatgcmn natagatcag gagcttaggg g 51  
 337 <210> SEQ ID NO: 9  
 339 <211> LENGTH: 51  
 341 <212> TYPE: DNA  
 343 <213> ORGANISM: Artificial  
 347 <220> FEATURE:  
 349 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide

## RAW SEQUENCE LISTING

DATE: 06/02/2003

PATENT APPLICATION: US/09/710,444B

TIME: 14:40:18

Input Set : A:\sequence listing\Mzw2841.txt

Output Set: N:\CRF4\06022003\I710444B.raw

351 <400> SEQUENCE: 9  
 352 atgggacccc actttgcaaa bhggatgcab hatagatcag gagcttaggg g 51  
 355 <210> SEQ ID NO: 10  
 357 <211> LENGTH: 19  
 359 <212> TYPE: DNA  
 361 <213> ORGANISM: Artificial  
 365 <220> FEATURE:  
 367 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 369 <400> SEQUENCE: 10  
 370 ttgcaaagtg ggggtcccat 19  
 373 <210> SEQ ID NO: 11  
 375 <211> LENGTH: 60  
 377 <212> TYPE: DNA  
 379 <213> ORGANISM: Artificial  
 383 <220> FEATURE:  
 385 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 387 <220> FEATURE:  
 389 <221> NAME/KEY: Variation  
 391 <222> LOCATION: (23)..(24)  
 393 <223> OTHER INFORMATION: X is any nucleotide  
 397 <220> FEATURE:  
 399 <221> NAME/KEY: Variation  
 401 <222> LOCATION: (29)..(30)  
 403 <223> OTHER INFORMATION: X is any nucleotide  
 407 <220> FEATURE:  
 409 <221> NAME/KEY: Variation  
 411 <222> LOCATION: (32)..(33)  
 413 <223> OTHER INFORMATION: X is any nucleotide  
 417 <220> FEATURE:  
 419 <221> NAME/KEY: Variation  
 421 <222> LOCATION: (35)..(36)  
 423 <223> OTHER INFORMATION: X is any nucleotide  
 427 <220> FEATURE:  
 429 <221> NAME/KEY: Variation  
 431 <222> LOCATION: (38)..(39)  
 433 <223> OTHER INFORMATION: X is any nucleotide  
 437 <400> SEQUENCE: 11  
 W--> 438 cttggtccct tggccgaacg tmnnaggmnn mnnmnnmnnnc tgttgacagt agtaagttgc 60  
 441 <210> SEQ ID NO: 12  
 443 <211> LENGTH: 60  
 445 <212> TYPE: DNA  
 447 <213> ORGANISM: Artificial  
 451 <220> FEATURE:  
 453 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 455 <400> SEQUENCE: 12  
 456 cttggtccct tggccgaacg tabhaggabh abhabhabhc tgttgacagt agtaagttgc 60  
 459 <210> SEQ ID NO: 13  
 461 <211> LENGTH: 20  
 463 <212> TYPE: DNA

## RAW SEQUENCE LISTING

DATE: 06/02/2003

PATENT APPLICATION: US/09/710,444B

TIME: 14:40:18

Input Set : A:\sequence listing\Mzw2841.txt

Output Set: N:\CRF4\06022003\I710444B.raw

465 <213> ORGANISM: Artificial  
 469 <220> FEATURE:  
 471 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 473 <400> SEQUENCE: 13  
 474 gaggtgcagc tgttgagtc 20  
 477 <210> SEQ ID NO: 14  
 479 <211> LENGTH: 53

481 <212> TYPE: DNA  
 483 <213> ORGANISM: Artificial  
 487 <220> FEATURE:  
 489 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide  
 491 <220> FEATURE:

493 <221> NAME/KEY: Variation  
 495 <222> LOCATION: (21)..(22)  
 497 <223> OTHER INFORMATION: X is any nucleotide

501 <220> FEATURE:  
 503 <221> NAME/KEY: Variation  
 505 <222> LOCATION: (27)..(28)  
 507 <223> OTHER INFORMATION: X is any nucleotide  
 511 <220> FEATURE:

513 <221> NAME/KEY: Variation  
 515 <222> LOCATION: (33)..(34)  
 517 <223> OTHER INFORMATION: X is any nucleotide

521 <400> SEQUENCE: 14

W--> 522 ctggagcctg gcggaacccam nncatmnnat amnngctaaa ggtgaatcca gag 53

525 <210> SEQ ID NO: 15

527 <211> LENGTH: 53

529 <212> TYPE: DNA

531 <213> ORGANISM: Artificial

535 <220> FEATURE:

537 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide

539 <400> SEQUENCE: 15

540 ctggagcctg gcggaacccaa bhcatatbat aabhgctaaa ggtgaatcca gag 53

543 <210> SEQ ID NO: 16

545 <211> LENGTH: 19

547 <212> TYPE: DNA

549 <213> ORGANISM: Artificial

553 <220> FEATURE:

555 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide

557 <400> SEQUENCE: 16

558 tgggtccgcc aggtccag 19

561 <210> SEQ ID NO: 17

563 <211> LENGTH: 53

565 <212> TYPE: DNA

567 <213> ORGANISM: Artificial

571 <220> FEATURE:

573 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide

575 <220> FEATURE:

577 <221> NAME/KEY: Variation

Please correct this error in subsequent sequences

Please correct this error in subsequent sequence

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/710,444B

DATE: 06/02/2003  
TIME: 14:40:19

Input Set : A:\sequence listing\Mzw2841.txt  
Output Set: N:\CRF4\06022003\I710444B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 23,24,29,30,32,33,38,39,41,42,44,45,50,51  
Seq#:5; N Pos. 23,24,26,27,29,30,32,33  
Seq#:8; N Pos. 21,22,30,31  
Seq#:11; N Pos. 23,24,29,30,32,33,35,36,38,39  
Seq#:14; N Pos. 21,22,27,28,33,34  
Seq#:17; N Pos. 23,24,26,27,29,30,32,33  
Seq#:20; N Pos. 21,22,27,28,30,31,33,34  
Seq#:23; N Pos. 23,24

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27  
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51  
Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75  
Seq#:76,77,78,79,80,81,82,83,84,85,86,87



## VERIFICATION SUMMARY

DATE: 06/02/2003

PATENT APPLICATION: US/09/710,444B

TIME: 14:40:19

Input Set : A:\sequence listing\Mzw2841.txt

Output Set: N:\CRF4\06022003\I710444B.raw

L:21 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:23 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:438 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:522 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:710 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
L:774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0